



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,473	04/06/2001	Joseph Allen Carroll	10782-0010	6151
29052	7590	10/20/2004		
SUTHERLAND ASBILL & BRENNAN LLP 999 PEACHTREE STREET, N.E. ATLANTA, GA 30309			EXAMINER DUONG, THANH P	
			ART UNIT	PAPER NUMBER

1764

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,473

Applicant(s)

CARROLL ET AL. *Sc*

Examiner

Tom P Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/18/02.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 10/11/04
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's oral election without traverse of Group I (claims 1-20 and 23-25) on September 24, 2004 has been acknowledged. Please disregard the mailed restriction requirement with mailing date of 10/1/04.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20 and 23-25, drawn to a catalytic converter device for use in a vent, classified in class 422, subclass 177.
- II. Claims 21-22, drawn to a method of reducing smoke and volatile organic compounds present in a gas flowing through a vent, classified in class 126, subclass 299.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another materially different apparatus such as the use of a wet

Art Unit: 1764

scrubber to reduce and the smoke and volatile organic compound other than the use of a ceramic substrate with a catalyst coating.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Kevin King on 09/24/04 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20 and 23-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 8-10, 19-20, and 23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Burstein (3,785,778). Regarding claims 1, 8-10, 19, and 23, Burstein discloses an oven (Col. 1, lines 5-6) with a catalytic converter device (Fig. 3) for use in a vent (Col. 1, lines 64-65) comprising: a ceramic (6,7,8) substrate having a first surface, a second surface, a circumferential surface, and a plurality of apertures (10) extending through the substrate from the first surface to the second surface; a material coating (Col. 2, lines 56-60) the ceramic substrate, wherein the coating material comprises a noble catalyst (platinum); and a stainless steel mounting ring (rectangular pot 47 and Col. 6, lines 60-62) comprising (i) a body in the shape of a ring (47); (ii) one or more retaining tabs (inwardly directed flange 53) extending from the body which secure the ceramic substrate (6,7,8) within the ring about the circumferential surface of the ceramic substrate; and (iii) one or more locking tabs (secure flange 63) extending from the body, the one or more locking tabs engagable with one or more surfaces the vent to secure the catalytic

Art Unit: 1764

converter (Fig. 3) within an orifice (27) of the vent such that gases flowing through the vent will pass through the apertures (10) of the substrate. With respect to the mounting "ring" as being circular, it is well-known in the art that the vent opening or exhaust duct comes with either rectangular or circular shape and it is inherent and/or obvious in view of Burstein to provide a mounting ring, either circular or rectangular in shape depending on the shape of the exhaust duct opening. (See USPN 4,437,451 with circular vent opening and USPN 3,536,457 with rectangular vent opening). Regarding claims 2 and 4-5, Burstein fails to disclose the ceramic substrate with thickness and diameter of the claimed invention. However, it would have been obvious in view of Burstein to one having ordinary skill in the art to provide a ceramic substrate with optimum dimension to properly secure the ceramic substrate in the vent opening and to ensure the smoke is completely eliminated. Note, prior art Admission also discloses that the catalytic converter of the claimed invention is commercially available (Specification, page 1, lines 16-25). Regarding claim 3, Burstein shows a rectangular ceramic substrate as shown in Fig. 3; however, it would have been obvious in view of Burstein to one having ordinary skill in the art to provide round disk or rectangular disk depending on the shape of the vent opening. Regarding claim 20, it is conventional to provide an oven with a self-cleaning mechanism and it would have been obvious to do so here to allow the oven to be self-cleaned.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein '788 in view of Henderson (3,536,457). Regarding claim 6, Burstein fails to disclose the ceramic substrate comprises of cordierite. Henderson teaches the use of a corrugated ceramic of cordierite type (Col. 3, lines 65-70) have been successful in oxidizing or purifying the exhaust gas (Col. 1, lines 40-65). Thus, it would have been obvious in view of Burstein to one having ordinary skill in the art to modify the catalytic converter of Burstein with cordierite as taught by Henderson in order to affectively oxidize or purifying the exhaust gas.
3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein '788 in view of prior art Admission. Burstein fails to disclose the ceramic substrate comprising of a wash coat. Admission discloses (page 7, lines 11-21) it is well known in the art to use a wash coating process to maximize the coating surface area for the ceramic substrate. Thus, it would have been obvious in view of prior art Admission to one having ordinary skill to modify the catalytic converter

Art Unit: 1764

of Burstein with the wash coat process as disclosed by Admission in order to provide a maximum catalyst contact area for the ceramic substrate.

4. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein '788 in view of Onocki (5,934,268). Regarding claims 11-16, Burstein shows a mounting ring (47) with a one-piece locking flange (63) and a one-piece retaining inwardly directed flange (53) of a first lip but fails to show a "multi" locking tabs and retaining tabs. Onocki teaches mounting bracket 106 with alternative catalyst securing means having locking tabs (108) and retaining tabs (112) to facilitate securing of the catalyst 110 and securing the catalyst to the plate 98 (Fig. 11 and Col. 5, lines 30-35). Thus, it would have been obvious in view of Burstein to one having ordinary skill in the art to modify the mounting ring of Burstein with locking tabs and retaining tab as taught by Onocki as an alternative means for securing the catalyst converter. Note, the securing flange (63) and inwardly directed flange (53) of Burstein lock and retain the catalyst converter and the securing flange (63) and flange (53) of Burstein are functionally equivalent to the locking tabs and retaining tabs of the claimed invention.

5. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein '788 in view of Olivo (5,285,640). Regarding claim 17, Burstein shows a mounting ring (47) with a second lip (63) having bolting securing means but fail to disclose the body can be clipped into second place between the second lip and the locking tabs to secure the catalytic converter.

Art Unit: 1764

Olivo teaches the catalyst converter (115) can be attached to device 70 by means of clips, and snap-fit-engagement, which inherently has a second lip to facilitate the attachment of the catalyst converter to the system (Col. 7, lines 8-20). These alternative attachment means aid the maintenance or serviceability of the catalyst converter (Col. 7, lines 8-10). Thus, it would have been obvious in view of Olivo to one having ordinary skill in the art to modify the mounting ring of Burstein with a second lip and locking tabs of a clip type attachment means as taught by Olivo to facilitate the serviceability of the catalyst converter. Claim 18 recite limitations similar to claim 17; thus, claim 18 is rejected for the same reasons as applied to claim 17, above.

6. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mlotek et al. (Pub No. DE019912453A1) in view of Burstein (3,785,778). Regarding claims 24 and 25, Mlotek a catalytic converter device (Fig. 3) for use in a vent or oven comprising: one or more screens (549) formed of a plurality of woven metal threads (Abstract), defining a plurality of apertures therebetween; a material coating the screens (551), wherein the coating material comprises a catalyst; and a mounting ring (87) comprising (i) a body in the shape of a ring and (iii) one or more locking tabs (81, 83) extending from the body, the one or more locking tabs engagable with one or more surfaces the vent (43) to secure the catalytic converter device within an orifice of the vent such that gases flowing through the vent will pass through the apertures of the one or more screens. Mlotek shows a mounting ring (87) with retaining bottom support

Art Unit: 1764

member (perforated screen 75) to hold the catalyst converter 55 but fails to show; (ii) one or more retaining tabs extending from the body which secure one or more screens within the ring. Burstein teaches alternative securing means having an inwardly directed flange (53) to facilitate securing the catalyst converter (8). Thus, it would have been obvious in view of Burstein to one having ordinary skill in the art to modify the perforated screen 75 of Mlotek with retaining tab as taught by Burstein in order to provide an alternative means for securing the catalyst converter. Note, the perforated screen 75 of Mlotek retains the catalyst converter 55 and it is functionally equivalent to the retaining tabs of the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1764

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
October 13, 2004

TD



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700